

Remarks

In the present paper, claims 1-35 are pending. Claims 1, 23, 27, 32, 33, 34 and 35 have been amended. Support for the amendments to the claims can be found, for example, at paragraphs 8, 37, 43 and 49 of the applicants' corresponding published patent application U.S. Pat. Pub. No. 2002/0046284.

Statement With Regard to Claim Amendments Herein

The applicants have amended claims 1, 23, 27, 32, 33, 34 and 35 in this application. Applicants are not conceding in this application that those claims are unpatentable over the art cited by the Examiner. Rather, the present claim amendments are only for facilitating expeditious prosecution of this application. The applicants respectfully reserve the right to pursue additional claims, including the claims as originally filed, in a continuation application.

35 U.S.C. § 102(e)

Claims 1-7 and 9-35 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. No. 6,765,909 to Sen et al. (hereinafter, "*Sen*"). According to the M.P.E.P. §2131, to establish a *prima facie* case of anticipation, the prior art reference must teach or suggest all the claim limitations. It is the applicants' position that *Sen* does not support the rejections to the claims as amended herein, thus a *prima facie* case of anticipation has not been established. Accordingly, the applicants respectfully request that the rejections are withdrawn.

Independent Claims 1, 32, and 34 are Patentable

Claims 1, 32 and 34 are directed to a method, system and computer program product and include similar recitations. Therefore, the arguments set out herein are directed with particular reference to claim 1, but apply analogously to claims 32 and 34.

In making the rejections to the above claims, the Examiner cites Col. 3, lines 20-40 and Col. 4, lines 40-61 for the teaching of providing transaction service level information for a data transmission transaction to a communication process execution on a data processing system. The applicants respectfully traverse this interpretation of *Sen*. These cited passages merely confirm the

applicants' position that *Sen* teaches a network based quality of service system that sets quality of service levels in data packets along a network between a router and base station. These cited passages nothing to do with transaction service level information as claimed and as will be described in detail herein.

Moreover, the Examiner cites col. 4, line 62-col. 5 line 7; col. 6, lines 6-18 and col. 7, lines 28-38 for the teaching of determining a quality of service level associated with a data transmission transaction based upon transaction service level information received by a communication process from an application. The applicants again, respectfully traverse this interpretation of *Sen*. Again, these passages deal with the setting of a network based quality of service level in a packet communication between a cellular wireless base station and a router and have nothing to do with transaction service level information received by a communication process as claimed and as will be described in greater detail herein.

According to the M.P.E.P. §706.02, in order to be anticipating under §102, the reference must teach every aspect of the claimed invention¹. It is the applicants' position that *Sen* fails to teach or suggest *as amended herein*:

A method for providing transactional quality of service within an endpoint data processing system... comprising ...requesting a data transmission transaction by an application of said endpoint data processing system... providing transaction service level information corresponding to said application to a communication process of said endpoint data processing system...

Sen teaches for relevant purposes, a conventional network-based quality of service system that is merely applied to the transmission of data packets in a wireless mobile cellular environment² and has nothing to do whatsoever with providing transactional quality of service within an endpoint data processing system as claimed³.

¹ *Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 138 (Fed. Cir. 1986).

² See for example, *Sen*, Col. 3, lines 15-23; Col. 4, lines 40-50; Abstract

³ See also, paragraph 8 of the applicants published patent application 2002/0046284.

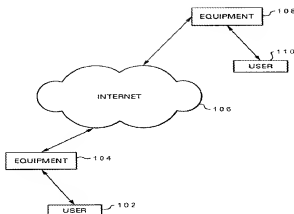


Fig. 1

For example, as seen in Fig. 1, reproduced herein, *Sen* teaches that endpoint users 102 and 110 communicate by transmitting signals that travel through equipment 104, 108 and the Internet 106. If user 102 is using a wireless communication device, the connecting equipment 104, 108 would include a transmitting and receiving tower (BTS), a base station controller and a mobile switching center⁴. The QoS system taught in *Sen* is applied between the equipment 104, 108 and the Internet 106 as will be described in greater detail below. This however, fails to teach or suggest transactional quality of service within an endpoint data processing system.

As best seen in Fig. 2 of *Sen*, which is reproduced below, all Quality of Service (QoS) processing is performed on network packets (IP/PPP) that have been transmitted by a router from a connected IP network, through a Quality of Service adaptation sublayer 206 to a corresponding cellular wireless base transceiver station⁵. That is, the Quality of service processing is performed between the Internet connection and corresponding equipment 104, 108 and has nothing to do with providing quality of service processing within an endpoints, e.g., users 102, 110.

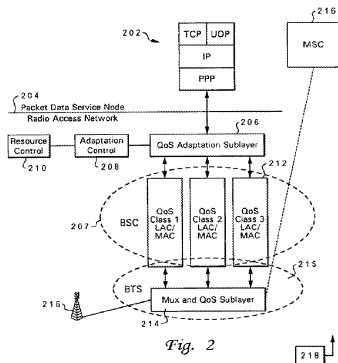
As noted in *Sen*:

...The process begins with step 600, which depicts *[sic]* a signal being transmitted, either from a network or from a wireless device. The process passes to step 602, which illustrates the signal being received, in the form of a PPP packet, into the classifier. *[ed. note- the classifier is part of the QAS 206, as best seen in Fig. 4]* If

⁴ See for example, *Sen*, Col. 4, lines 6-25; Fig. 1.

⁵ See for example, *Sen*, Col. 4, lines 26-39; Fig. 2.

the signal is "from the air," meaning transmitted to a BTS from a device not on the network, the signal is classified and passed through the appropriate LAC/MAC and sent onto the network. If the signal is "to the air" meaning a signal received into the Base Station from the network, the signal is classified and passed through the LAC/MAC and sent to the target device. (emphasis added)⁶.



Thus, in *Sen*, the QoS is established by the QoS Adaptation Sublayer (QAS) as the packets move between a router and the base station controller⁷, which establishes that the QoS system of *Sen* is a network-based system and not an endpoint system.

Moreover, *Sen* fails to teach or suggest providing transaction service level information corresponding to an application (requesting a data transmission transaction) to a communication process of an endpoint data processing system. In fact, *Sen* is completely silent with regard to, and fails to teach or suggest, *transaction* service level information. Moreover, *Sen* is completely silent with regard to, and fails to teach or suggest, applications and communication processes that are

⁶ See for example, *Sen*, Col. 6, lines 46-59.

⁷ See for example, *Sen*, Col. 4, lines 26-39; See also, Fig. 2.

executed on the endpoint processing systems, e.g., end users 102, 110. Moreover, there is no teaching or suggestion in *Sen* of providing transaction service level information corresponding to an application requesting a data transmission transaction to a communication process of an endpoint data processing system.

To the contrary, *Sen* arguably teaches away from the providing *transaction* service level information corresponding to an application requesting a data transmission transaction to a communication process of an endpoint data processing system. For example, in *Sen*, the *network-based* QoS level is determined by reading the TCP Port header information in IP/PPP packets. As noted in *Sen*, a classifier (which is part of the QAS 206), decodes the connection number field in the TCP/IP header 402 to determine the active flow. As different TCP flows become active, the classifier compares the value in the connection number field to values in a table. If a match is found, the QoS plane associated with the connection number is applied to the packet⁸. However, if the connection number is a new connection number, the classifier utilizes the source port number in the TCP header to determine the application type and QoS requirements, and a new packet data flow identification is then added to the connection number table⁹.

In other words, in *Sen*, transaction service level information is not utilized, but rather TCP Port header information is used to derive the QoS. Accordingly, *Sen* expressly teaches that the QoS is specifically not determined based upon transaction service level data. As noted above, *Sen* teaches the use of TCP/IP ports to differentiate types of quality of service¹⁰. However, such an approach may fail to integrate desired transactional priorities. As an example, in *Sen*, all HTTP (web browser) packets would get the same QoS because they are all from the same TCP Port (Port 80 or 443 if SSL communications are being used). However, this wholly fails to differentiate different types of web-based transactions that require different service levels, e.g., in *Sen*, all downloads, browses and business transactions are managed at the same priority level.

⁸ See for example, *Sen*, Col. 6, lines 7-13

⁹ See for example, *Sen*, Col. 6, lines 13-37.

¹⁰ See for example, *Sen*, Col. 5, line 42-Col. 6, line 38.

Moreover, *Sen* is completely silent with regard to, and fails to teach or suggest:

...evaluating said transaction service level information at said endpoint data processing system ... determining a quality of service level at said endpoint data processing system, wherein said quality of service level is associated with said data transmission transaction and is based on said transaction service level information received by said communication process...

There is no teaching or suggestion anywhere in *Sen* of evaluating transaction service level information. Moreover, there is no teaching or suggestion anywhere in *Sen* of determining quality of service at an endpoint or of basing quality of service on transaction service level information.

At least for the above reasons, the applicants respectfully assert that claims 1, 32 and 34 and the claims that depend there from are patentable over *Sen*. Therefore, the applicants respectfully request that the rejections under 35 U.S.C. §102(c) be withdrawn.

Independent Claims 23, 33, and 35 are Patentable

Claims 23, 33 and 35 are directed to a method, system and computer program product and include similar recitations. Therefore, the arguments set out herein are directed with particular reference to claim 23, but apply analogously to claims 33 and 35.

In making the above rejections, the Examiner cites col. 3, lines 20-24; col. 4, line 40-col. 5, line 7; col. 6, lines 6-18 and col. 7, lines 28-38 for the teaching of providing an application program interface to a communication process...so as to establish a quality of service level for the transmission of data without reference to the contents the received data to be transmitted. The applicants respectfully traverse this interpretation of *Sen*. Again, these passages deal with the setting of a network based quality of service levels and do not address an application program interface as presented in the amended claims herein, and as will be described in greater detail below.

Sen fails to teach or suggest, as amended herein:

A method for establishing a transactional quality of service level within an endpoint data processing system for the transmission of data, comprising...providing an application program interface to a communications

process of an endpoint node ... wherein ... said application program interface provides said quality of service level to said communication process based upon receiving at least one of a specific quality of service specification from a corresponding application associated with said endpoint data processing system or from application level information which is evaluated to determine said quality of service level at said endpoint data processing system.

As noted in greater detail above, *Sen* is completely silent with regard to, and fails to teach or suggest providing quality of service at an endpoint. Moreover, *Sen* is completely silent with regard to, and fails to teach or suggest that an application at an endpoint can specify its own quality of service level or that application level information that is evaluated at the endpoint processing system can be used to set a quality of service level. As noted above, *Sen* utilizes TCP/IP ports to differentiate types of quality of service in a network packet communication.

At least for the above reasons, the applicants respectfully assert that claims 23, 33 and 35 and the claims that depend there from are patentable over *Sen*. Therefore, the applicants respectfully request that the rejections under 35 U.S.C. §102(e) be withdrawn.

Independent Claim 27 is Patentable

With specific reference to claim 27, as amended herein, *Sen* fails to teach or suggest as amended herein:

A system for establishing a quality of service level within an endpoint data processing system for transmitted data, comprising ...a send message application program interface configured to receive content data from at least one application associated with said endpoint data processing system to be transmitted and quality of service information separate from the content data to be transmitted... a policy service module associated with said endpoint data processing system configured to determine a quality of service level based on the quality of service information...

As noted in greater detail herein, *Sen* is completely silent with regard to, and fails to teach or suggest an application program interface that receives quality of service information separate from the content data to be transmitted. Moreover, *Sen* is completely silent with regard to, and fails to teach or suggest providing quality of service information at an endpoint as described more fully herein. Still further, *Sen* is completely silent with regard to, and fails to teach or suggest providing a

policy service module associated with said endpoint data processing system configured to determine a quality of service level based on the quality of service information.

At least for the above reasons, the applicants respectfully assert that claim 27 and the claims that depend there from are patentable over Sen. Therefore, the applicants respectfully request that the rejections under 35 U.S.C. §102(e) be withdrawn.

35 U.S.C. § 103(a)

Claim 8 stands rejected under 35 U.S.C. §103(a) as being obvious over Sen in view of Official Notice. In this regard, the Examiner takes official notice that both the concept and advantages of providing for data encryption is well known and expected in the art. The applicants respectfully assert that, notwithstanding the Examiner's official notice, claim 8 is patentable at least by virtue of being dependent upon a base claim, which the applicants believe to be patentable over the art of record as set out more fully herein.

Conclusion

For all of the above reasons, the applicants respectfully submit that the above claims recite allowable subject matter. The Examiner is encouraged to contact the undersigned to resolve efficiently any formal matters or to discuss any aspects of the application or of this response. Otherwise, early notification of allowable subject matter is respectfully solicited.

Respectfully submitted,

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